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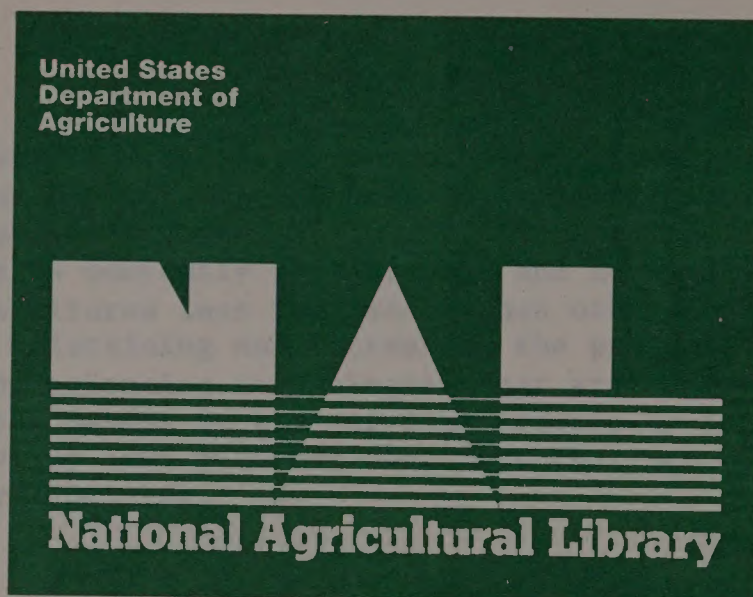
Natural
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Investment in Land by Landowner Classes

Karl Gertel
Douglas G. Lewis
Kenneth M. Miranda

INVESTMENT IN LAND BY LANDOWNER CLASSES. By Karl Gertel, Douglas G. Lewis, and Kenneth M. Miranda*, Natural Resource Economics Division, Economic Research Service, U.S. Department of Agriculture. Washington, D.C. 20250. March 1985. ERS Staff Report No. AGES841029.

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* Kenneth M. Miranda is now a graduate student at the University of Chicago.

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ERRATA SHEET

The reference listed on p. 3 that reads "(5, 6)" should read (5, p. 6).

Figure 1--Farm Production Regions (p. 10): For purposes of this study, the Pacific region excludes Alaska and Hawaii.

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SUMMARY

This study examines the relative frequencies of land-improvement investments by various classes of owners of farmland and suggests policy alternatives to maintain or increase these investments.

Over the 3-year period, 1975-77, a significantly higher proportion of farm operator owners reported capital expenditures for conservation, land clearing, and drainage than owners who did not operate any of their land. This conclusion holds for individual and family operator owners, and for nonfamily partnerships and corporate operator owners. Nonfamily operators made capital expenditures with somewhat higher frequency than individual and family operators. The differences were not significant, except for drainage expenditures. Regional results for individual and family owners were consistent with national findings. Sample observations were too few for regional analysis of nonfamily units.

Retired nonoperator owners, who constitute approximately 40 percent of all nonoperator owners, made capital expenditures on their land less often than other nonoperator owners. This lower rate appears to be related to the high age of the retired group. Nonoperator owners who reside outside the county in which their land is located made capital expenditures with about the same frequency as local nonoperator owners.

A significant degree of farmland ownership by nonoperators is to be expected. Retired farmers, widows, children of farmers, and some nonfarm investors become farmland owners. Some nonoperator ownership of farmland is desirable because it results in a sharing of the high capital requirements and risks of modern agriculture and reduces the concentration of ownership as farms get larger. Our research indicates lower capital expenditures for land improvements by nonoperator owners, but recent research indicates that these lower capital expenditures may not have impaired productivity on rented land. Therefore, no new programs are suggested. However, we suggest three alternatives that can be readily included in existing local, State, and Federal programs. They are: develop new technologies that are attractive to tenants for maintaining and increasing land productivity; encourage nonoperator owners to invest in their land; and develop land purchase contracts that are mutually advantageous to tenants and landlords, especially older landlords with limited income.

Investment in Land by Landowner Classes

Karl Gertel
Douglas G. Lewis
Kenneth M. Miranda

INTRODUCTION

This report analyzes the frequency of capital expenditures for land improvements by various landowner classes. The findings answer some questions of public concern about ownership of farmland, at least those questions dealing with maintaining and improving land productivity. These findings may be used to help develop policies for these purposes.

The investigation initially focused on absentee owners of farmland, that is, owners living outside the community in which their land is located. There is some public concern that absentee owners may not invest in their land to maintain and enhance its productive capacity. Our data do not support the proposition that absentee owners invest less in their land than local nonoperator owners. However, we found a strong association between other owner characteristics and the propensity to invest in land. These characteristics, operator versus nonoperator owner and retired versus nonretired owner, are consistent with economic logic.

We describe the landowner groups examined, the rationale for their selection, and the relative importance of each landowner class by number of owners and acres owned. We examine the frequency of capital outlays for conservation, land clearing, and drainage over a 3-year period by landowner class and personal characteristics of landowners. We discuss the implications of our results and present regional data in the appendix.

LANDOWNER CLASSES

The landowner classes selected for analysis were developed separately for individual and family proprietors, and nonfamily partnerships and corporations. Only nonfamily partnerships and corporations headquartered outside the county in which their land is located were included because public concern centers on absentee owners.

Economic logic, some research results, and popular opinion support the view that owner operators are more likely to invest in their land's productivity

than nonoperator owners. 1/ Therefore, individual and family owners were divided into two groups: (1) farm operators who reported operating all or part of their land, and (2) nonoperators who reported that they did not operate any of their land. Only 13 percent of the operator owners rented land to other operators; this accounted for only 5 percent of all land owned by operator owners. But, 76 percent of the nonoperators rented 79 percent of their land. The remaining nonoperators either kept their land idle or failed to report it as being rented or owner operated. Testing for differences between operator owners and nonoperators was conducted for the 76 percent of the nonoperators who were identified as landlords, and the entire group of nonoperators.

Nonfamily partnerships and corporations were also subdivided into farm operators and nonoperators. About 74 percent of the nonoperators rent out 82 percent of the land owned by the nonfamily, nonoperator group.

Individual and family nonoperators were subdivided into retired and nonretired owners. Economic logic and research suggest that the combination of high age and limited income, often characteristics of retired owners, negatively effect investment in land. 2/

Data for the classification of landowners came from the Economic Research Service (ERS) Landownership Survey (10). 3/ Survey information was obtained from 37,344 landowners who reported owning farmland in 1978, including the amount of land owned and personal characteristics of landowners, such as age, sex, education, and income. Owners of 50 or more acres were selected for this study. Owners of less than 50 acres were excluded because their large proportion (57 percent) would tend to dominate the results, although they account for less than 6 percent of all privately owned farmland.

The landowners included in this study own an estimated 836 million acres or 89 percent of all privately owned farmland (10). The distribution of acres owned and number of owners is given in table 1. Corresponding regional information is given in appendix tables 1 and 2. About 70 percent of all privately owned farmland is owned by individuals and families who operate most of their land.

1/ According to economic theory, landowners should invest in their land if the present value of expected investment returns exceed investment costs. Owner operators directly receive investment returns as increased farm income, but nonoperators' returns are less direct. Their investment returns must come from higher rents and higher land market values (4, chapter 11). Baron found a positive relationship between operation of land by the owner and capital outlays in conservation in three of four regions he studied (1, 31). (See references at the end of this report.)

2/ High age, especially when associated with low income, tends to result in high discount of expected future investment returns and difficulty in financing investment costs (4, 105-106). Baron found a negative correlation between age and capital outlays for conservation and a positive correlation with education. He reports only a weak positive relationship between farm income and capital outlays for conservation but this finding does not take into account the non-farm income of the landowner which exceeds farm income for most nonoperator owners (1, 31).

3/ Underscored numbers in parentheses refer to references at the end of this report.

This group constitutes 61 percent of all farmland owners. Most of the remaining farmland is owned by nonoperator individuals and families. About 41 percent of the nonoperator owners are retired; they account for 39 percent of the farmland owned by nonoperators.

Nonfamily partnerships and corporations account for only 3 percent of all privately owned farmland and less than 1 percent of all farmland owners. These percentages are for groups headquartered outside the county in which their land is located. All nonfamily owned partnerships and corporations constitute 5.9 percent of all privately owned farmland and 2.4 percent of all landowners (5, 6).

DIFFERENCES IN FREQUENCY OF CAPITAL EXPENDITURES FOR CONSERVATION, LAND CLEARING, AND DRAINAGE

Operators Versus Nonoperators

The percentage of owners who made capital expenditures for conservation, land clearing, and drainage from 1975 through 1977 are summarized in table 2. 4/ Individual and family owners and nonfamily partnership and corporation opera-

Table 1--Farmland owner groups and number of owners with 50 or more acres.

Landowner groups	Acres owned		Number of owners	
	<u>Million</u>	<u>Percent</u>	<u>Thousand</u>	<u>Percent</u>
Individuals and families:				
Operators <u>1/</u>	575.4	68.8	1,738.1	61.1
Nonoperators, not retired	143.4	17.2	631.8	22.2
Nonoperators, retired	91.4	10.9	445.7	15.7
Nonfamily partnerships and corporations: <u>2/</u>				
Operators <u>1/</u>	10.3	1.2	5.8	.2
Nonoperators	15.6	1.9	19.9	.7
Total	836.1	100.0	2,841.3	99.9

1/ Operate all or part of their land as a farm or ranch.

2/ Headquartered outside the county in which their land is located.

Source: (10)

4/ Landowners were questioned about capital expenditures for conservation, land clearing, and drainage; conversion of land to cropland; and first time irrigation of land. Conversion to cropland may not require capital expenditures. When cropland conversion requires capital expenditures it is usually for clearing or drainage. Frequency of reporting first time irrigation was very unevenly distributed. It ranged from 1-3 percent in four regions containing more than 50 percent of the landowner units.

tors reported significantly higher frequencies of capital expenditures for conservation, land clearing, and drainage than nonoperators. 5/ 6/ These

Table 2--Percentage of owner operators (50 or more acres) reporting capital expenditures for land conservation, clearing, and drainage, 1975-77. 1/

Landowner groups	Capital expenditures		
	Conservation	Clearing	Drainage
	<u>Percent</u>		
Individuals and families:			
Operators <u>2/</u>	15.8	16.6	13.0
Nonoperators, not retired	9.5**	9.2**	7.3**
Nonoperators, retired	6.3**	3.9**	6.9**
Nonfamily partnerships and corporations: <u>3/</u>			
Operators <u>2/</u>	18.2	20.1	22.1
Nonoperators	8.6**	14.1*	12.5*

1/ Nonrespondents, who ranged from 2-11 percent of the landowner group population totals, were excluded.

2/ Operate all or part of their land as a farm or ranch.

3/ Headquartered outside the county in which their land is located.

*/ Significant at 95-percent level of probability, compared with nonfamily operators.

**/ Significantly lower than corresponding percentage for operators at the 99-percent level of probability. Tested separately for individuals and families, and nonfamily partnerships and corporations. Differences between retired and nonretired nonoperators significant at the 99-percent level, except for drainage which is not significant at the 95-percent level. Differences between individual and family and nonfamily operators are not significant at the 95-percent level for conservation and clearing but are significant at the 99-percent level for drainage. Approximate test based on Chi-square.

Source: (10).

5/ Tests of significance were based on Chi-square calculations from contingency tables. Sample responses were adjusted for bias against small owners inherent in an area sample. This was done by taking the number of positive and negative responses--not from the sample but from the proportions of positive and negative responses in the expanded population totals. This gives the expected number of responses for a random sample of owners. The Chi-square contingency test, as used here, is an approximate test. The Chi-square test was accepted, given the consistency of the results over the ten farm production regions.

6/ Significant denotes significant at the 95-percent level of probability or higher.

operators also reported higher frequencies of capital expenditures in each of the ten farm production regions (appendix tables 3-5).

Nonfamily partnerships and corporate operators reported higher capital outlay frequencies than individual and family operators, but the differences were only significant for drainage.

About 75 percent of all nonoperators were identified as landlords. It is possible that the remaining 25 percent were owners who typically do not invest in their land. If this is true, they could bring down the proportion of nonoperators reporting capital expenditures. To check this possibility we compared operators and landlords, leaving out the nonoperators who did not report renting their land. This adjustment did not change the conclusion that operators made significantly more frequent outlays for conservation, clearing, and drainage than nonoperators.

Retired Nonoperators Versus Operators in the Same Age Group

Can differences in frequencies of capital outlays for conservation, land clearing, and drainage, between operators and nonoperators be explained by age differences? To test this hypothesis, retired nonoperators were compared with farm operators in the same age group as retired nonoperators. If the differences in capital outlay frequencies are entirely due to age differences, then farm operators should have the same investment frequencies as retired owners of the same age. This is not the case. The investment frequencies for owner operators in the same age groups as retired owners are 9.9 percent for conservation, 10.3 percent for land clearing, and 8.0 percent for drainage.^{7/} These percentages are considerably below those reported for all farm operators (table 2), reflecting the negative effect of age on capital outlays for land. However, they are significantly higher than the frequencies reported by retired owners for conservation and land clearing. The difference between retired owners and farm operators of comparable age is not significant for drainage.

Retired Versus Nonretired Nonoperators

Retired landowners reported lower frequencies of capital expenditures for conservation, land clearing, and drainage than nonretired nonoperators (table 2). The differences are significant for conservation and land clearing but not for drainage. The pattern was generally the same over the ten farm production regions.

The lower frequency of capital outlays by retired landowners is consistent with their personal characteristics (table 3). Over 95 percent were 60 years or older, 60 to 70 percent reported their income for 1977 as less than \$10,000 from all sources including Social Security, retirement, and disability payments. About 80 percent of the retired landowners live in the county where their land is located.

^{7/} Investment frequencies for farm operators with the same age distribution as retired nonoperators were calculated by multiplying the investment frequencies of farm operators (by age group) by the age distribution of retired nonoperators.

An alternative classification of nonoperator owners based on age would have given similar results. Capital outlay frequencies were within 1 percent of the frequencies of retired owners for all nonoperator owners who were 60 years or older. The results are similar because age is negatively related with capital outlay for all classes of owners examined and because about 68 percent of all nonoperator owners aged 60 or more are retired.

Local Versus Out-of-County Nonoperator Owners

We compared capital outlays made by owners who reside in the county in which their land is located and owners who reside out-of-county. One might hypothesize that the distance between owners' residences and their land negatively affects frequency of land investment. The more distant owners are less likely to be familiar with investment opportunities and may require more time to arrange investments.

Empirical testing did not support the hypothesis that capital outlays for land is negatively related to distance between owners' residences and their land. Nonoperator owners residing out-of-county reported a frequency of capital outlays for conservation of 8.9 percent, compared with 7.7 percent for local

Table 3--Selected personal characteristics of individuals and families owning 50 or more acres of farmland.

Characteristics ^{1/}	Operators ^{2/}	Nonoperators	
		Not retired	Retired
	<u>Percent</u>		
Living in different county ^{3/}	9.4	32.9	19.9
Living in different State ^{3/}	1.5	12.9	5.4
Did not complete high school	34.5	27.6	61.2
Sixty years or older	32.3	39.1	95.4
Earned less than \$10,000 1977 ^{4/}	36.5-55.0	30.5-38.3	59.9-71.9

^{1/} Characteristics were obtained for the family member who makes most decisions regarding the land.

^{2/} Operate all or part of their land as a farm or ranch.

^{3/} Owners live in a county or State other than that in which their land is located.

^{4/} Combined farm and nonfarm income. Excludes owners with a negative income in excess of -\$10,000 because these owners were not considered a low-income group. A range is given because data were reported by ranges of income.

Source: (10).

nonoperator owners. The percentage of nonoperator owners reporting capital outlays for land clearing and drainage was virtually the same: 7.1 and 7.2 percent for out-of-county residents and 7 and 7.1 percent for owners residing in the county. ^{8/} Apparently, the negative affect of distance is offset by the concentration of retired owners in the counties in which their land is located (table 3).

CONCLUSIONS AND IMPLICATIONS

We found that operator owners are more likely to invest in the conservation and productivity of their land than nonoperator owners. Over a 3-year period, owners who operated all or some of their land made more frequent capital expenditures for conservation, land clearing, and drainage than owners who did not operate any of their land. This was true nationally, and in each of the ten farm production regions.

Older operator owners reported capital expenditures less frequently than younger operators. However, older operators reported higher frequencies of capital expenditures than nonoperators of comparable age.

Data for nonfamily partnerships and corporations headquartered outside the county in which their land is located were examined at the national level because data were insufficient for regional analysis. Again, we found that nonfamily owners who operated some or all of their land made more frequent capital expenditures for conservation, land clearing, and drainage than nonfamily owners who did not operate any of their land. These findings are generally consistent and extend Baron's findings which are based on the 1978 Landownership Survey for capital expenditures for conservation in four farm production regions (1). The results complement the findings of Duffield and others who reported that owner operators had a higher frequency of forage production and investments in improvements (6).

We also found that retired nonoperators made less frequent capital expenditures for conservation and land clearing than other nonoperators. This was true in each of the ten farm production regions with only minor exceptions. However, this conclusion does not apply to capital expenditures for drainage where the percentage of retired owners reporting capital outlays was not significantly lower. An alternative classification of nonoperator owners based on age would give similar results.

This study demonstrates that nonoperators, particularly older and retired owners, make less frequent capital expenditures for their land than owner operators. It has not been shown that lower capital expenditures by nonoperators has adversely affected the productivity of farmland owned by nonoperators. Local studies by Ervin in Missouri and van Vuuren in Ontario, Canada, indicate adverse effects of tenancy on land productivity (7, 11).

^{8/} These results are consistent with the findings of Duffield and others from surveys conducted in California, Iowa, and Mississippi. They found that differences in distance between owners' residences and their land were generally unimportant in production patterns and investments made on rented land (6, 101).

Recent research by Bills, based on a nationwide sample of owner operated and rented cropland, fails to show significant differences in conservation practices on owned and rented land. But, Bills is concerned about the potential erosion associated with the high percentage of rented land planted with row crops (2).

Lee distinguishes between investments in land, such as terraces, grassed waterways, and gully control structures and conservation practices which save farm operating costs and can be adopted by tenants without owner involvement. (8) In a nationwide survey, Lee and Stewart found no significant difference in adoption of minimum tillage between rented and owned land (9). Capital expenditures for conservation, land clearing, and drainage may be used to maintain or repair existing facilities. Such maintenance and repair may be performed by tenants on land owned by nonoperators.

What are the policy implications of these findings? Given an agricultural sector made up mostly of family operated farms and a free market for farmland, it is inevitable that a significant amount of farmland will be owned by nonoperators. Retired farmers, widows, children of farmers, and some investors from the nonfarm sector become nonoperator landowners. This distribution of farmland has some good consequences. It shares the risk and the high capital requirement of modern agriculture and reduces the concentration of landownership as farms become bigger and fewer. 9/ This study demonstrates lower capital expenditures for farmland improvements by nonoperator owners, but recent research casts doubt that these lower expenditures result in impaired productivity on rented land. Therefore, no new programs are suggested to maintain and increase the productivity of farmland owned by nonoperators. However, we recommend the following alternatives that can be readily included in existing local, State, and Federal programs. Not all are new. 10/ Each may have limited applicability, but together they will result in more productive farmland.

1. Develop and encourage technologies that enhance the productivity of land and that are economically attractive to tenants as well as to landlords. For example, minimum tillage and residue management.
2. Encourage investment by nonoperator owners. The educational and financial support systems of local, State, and Federal agencies would encourage nonoperators to participate in programs of interest to them. These programs include assistance for estimating cost and returns to land investments and locating sources of credit and financial assistance. The traditional assistance for preparing lease agreements which facilitate investment in land and improvements should, of course, be continued.

9/ Boxley reports that from 1945 to 1978, the number of farm operators fell from 5.9 to 2.5 million, but the number of landlords increased by approximately 1 million (3).

10/ Ervin advocates the first strategy. He also suggests educating landlords and tenants to develop leases which require sharing the costs of conservation measures.

3. Develop programs to transfer farmland to operators. The "father-son agreement" which allows farm operators to transfer land to their children would be adapted for nonoperators. For example, develop a payment schedule which would allow a tenant to purchase land from a retired landowner who has little income and who wishes to retain ownership for life.

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APPENDIX

This appendix gives data for the ten farm production regions (fig. 1) by landowner class. The amount of farmland owned and the number of owners are given in tables 1 and 2. The percentage of owners investing in conservation, land clearing, and drainage are shown in tables 3, 4, and 5. Tables 5-10 present personal characteristics of individual and family owners.

Figure 1

Farm Production Regions



Appendix table 1--Farmland owned by owners of 50 or more acres of farmland.

Region	Acreage owned by individual and family owners						Acreage owned by nonfamily partnerships and corporations <u>2/</u>		Total	
	Operators		Nonoperators				Million acres	Percent		
			Retired	:	Not retired					
	Million acres	Percent	Million acres	Percent	Million acres	Percent	Million acres	Percent	Million acres	Percent
Appalachian	35.2	67.3	6.3	12.0	9.5	18.2	1.3	2.5	52.3	100
Corn Belt	66.0	61.6	17.9	16.7	22.1	20.6	3/	3/	107.2	100
Delta	21.8	61.6	4.4	12.4	7.8	22.0	3/	3/	35.4	100
Lake	42.0	72.4	6.7	11.6	8.7	15.0	3/	3/	58.0	100
Mountain	129.8	79.3	8.3	5.1	15.4	9.4	10.2	6.2	163.7	100
Northeast	22.1	68.4	2.9	9.0	6.5	20.1	3/	3/	32.3	100
Northern Great Plains	95.7	66.6	20.4	14.2	26.8	18.6	3/	3/	143.7	100
Pacific	32.4	66.3	5.1	10.4	7.4	15.1	4.0	8.2	48.9	100
Southeast	29.8	61.8	5.5	11.4	10.7	22.2	3/	3/	48.2	100
Southern Great Plains	100.6	68.9	13.7	9.4	28.5	19.5	3/	3/	146.1	100
Total	575.4		91.2		143.4		25.8		835.8	

1/ Operate all or part of their land as a farm or ranch.

2/ Headquartered outside the county in which their land is located.

3/ Less than 100 sample observations.

Source: (10).

Appendix table 2--Number of owners of 50 or more acres of farmland.

Region	Individual and family owners						Nonfamily partnerships and corporations 2/		Total	
	Operators		Nonoperators							
	Thousand	Percent	Thousand	Percent	Thousand	Percent	Thousand	Percent		
Appalachian	225.5	64.4	51.3	14.7	67.9	19.4	5.4	1.5	350.1	100
Corn Belt	348.9	58.6	110.7	18.6	132.1	22.2	3/	3/	595.1	100
Delta	101.3	60.7	29.1	17.4	35.5	21.3	3/	3/	166.9	100
Lake	206.7	66.5	46.0	14.8	56.8	18.3	3/	1/	311.0	100
Mountain	115.8	68.5	19.4	11.5	31.4	18.6	2.4	1.4	169.0	100
Northeast	132.5	61.9	26.5	12.4	52.6	24.6	3/	3/	214.0	100
Northern Great										
Plains	181.8	55.9	59.3	18.2	83.1	25.6	3/	3/	325.1	100
Pacific	72.2	64.8	13.3	11.9	23.4	21.0	2.6	2.3	111.5	100
Southeast	128.2	57.6	35.3	15.9	56.2	25.2	3/	3/	222.7	100
Southern Great										
Plains	225.5	59.9	54.8	14.6	92.8	24.7	3/	3/	376.2	100
Total	1,738.4		445.7		631.8		25.7		2,841.6	

1/ Operate all or part of their land as a farm or ranch.

2/ Headquartered outside the county in which their land is located.

3/ Less than 100 sample observations.

Source: (10).

Appendix table 3--Percentage of farmland owners (50 or more acres) reporting capital expenditures for conservation, 1975-77.

Region	Individual and family owners			Nonfamily partnerships and corporations 2/
	1/	Nonoperators		
	Operators	Retired	Not retired	
<u>Percent</u>				
Appalachian	11.5	2.9	8.1	11.7
Corn Belt	18.9	8.4	12.0	3/
Delta	12.8	5.0	7.6	3/
Lake	9.2	3.6	7.2	3/
Mountain	17.3	6.5	9.7	10.1
Northeast	12.0	1.5	5.7	3/
Northern Great Plains	17.8	10.0	10.0	3/
Pacific	13.7	1.2	12.9	7.3
Southeast	17.4	3.4	9.3	3/
Southern Great Plains	22.1	9.8	10.4	3/
Total	15.8	6.3	9.5	10.6

1/ Operate all or part of their land as a farm or ranch.

2/ Headquartered outside the county in which their land is located.

3/ Less than 100 sample observations.

Source: (10)

Appendix table 4--Percentage of farmland owners (50 or more acres) reporting capital expenditures for land clearing, 1975-77.

Region	Individual and family owners			Nonfamily partnerships and corporations 2/
	<u>1/</u>	Nonoperators		
	Operators	Retired : Not retired		
<u>Percent</u>				
Appalachian	20.7	4.1	13.3	10.5
Corn Belt	17.9	5.9	12.1	<u>3/</u>
Delta	21.8	5.6	15.8	<u>3/</u>
Lake	14.4	2.7	5.7	<u>3/</u>
Mountain	7.8	3.4	3.4	6.8
Northeast	17.7	.9	6.0	<u>3/</u>
Northern Great Plains	8.9	3.8	6.4	<u>3/</u>
Pacific	13.6	1.1	5.9	4. <u>3</u>
Southeast	19.6	4.2	12.3	<u>3/</u>
Southern Great Plains	19.6	2.3	6.8	<u>3/</u>
Total	16.6	3.9	9.2	15.8

1/ Operate all or part of their land as a farm or ranch.

2/ Headquartered outside the county in which their land is located.

3/ Less than 100 sample observations.

Source: (10).

Appendix table 5--Percentage of farmland owners (50 or more acres) reporting capital expenditures for drainage, 1975-77.

Region	Individual and family owners		Nonfamily partnerships and corporations 2/	
	1/ Operators	Nonoperators		
	Retired : Not retired			
<u>Percent</u>				
Appalachian	9.7	6.8	4.1	3.3
Corn Belt	20.0	12.5	15.9	<u>3/</u>
Delta	14.9	4.5	8.1	<u>3/</u>
Lake	14.7	6.7	7.5	<u>3/</u>
Mountain	7.5	4.9	2.0	6.5
Northeast	15.9	1.9	5.1	<u>3/</u>
Northern Great Plains	7.9	7.4	6.5	<u>3/</u>
Pacific	17.0	6.8	4.3	15. <u>4</u>
Southeast	11.2	3.2	4.6	<u>3/</u>
Southern Great Plain	8.3	2.4	2.7	<u>3/</u>
Total	13.0	6.9	7.3	14.7

1/ Operate all or part of their land as a farm or ranch.

2/ Headquartered outside the county in which their land is located.

3/ Less than 100 sample observations.

Source (10).

Appendix table 6--Percentage of farmland owners (50 or more acres) living outside the county in which their land is located.

Region	Individual and family owners		
	<u>1/</u> Operators	Nonoperators Retired : Not retired	
<u>Percent</u>			
Appalachian	7.9	12.3	19.7
Corn Belt	8.2	18.4	30.7
Delta	9.7	17.0	32.0
Lake	4.0	8.5	24.2
Mountain	11.1	31.4	63.1
Northeast	5.7	4.5	23.6
Northern Great Plains	11.1	35.1	55.2
Pacific	10.0	28.3	52.4
Southeast	8.0	15.4	30.4
Southern Great Plains	17.3	29.2	48.4
Total	9.4	19.9	32.9

1/ Operate all or part of their land as a farm or ranch.

Source: (10).



Appendix table 7--Percentage of farmland owners (50 or more acres) ^{1/} outside the State in which their land is located.

Region	Individual and family owners		
	^{1/} Operators	Nonoperators	
		Retired	: Not retired
<u>Percent</u>			
Appalachian	2.2	0.8	6.4
Corn Belt	1.2	5.0	8.9
Delta	1.6	6.1	9.2
Lake	.9	2.9	7.9
Mountain	2.0	12.2	36.4
Northeast	2.4	1.2	12.1
Northern Great Plains	1.9	11.9	20.8
Pacific	1.4	8.9	28.9
Southeast	.9	2.6	11.6
Southern Great Plains	1.1	5.9	8.8
Total	1.5	5.4	12.9

^{1/} Operate all or part of their land as a farm or ranch.

Source: (10).

Appendix table 8--Percentage of farmland owners (50 acres or more) who are 60 years or older.

Region	Individual and family owners		
	^{1/} Operators	Nonoperators	
		Retired	: Not retired
<u>Percent</u>			
Appalachian	37.5	97.1	41.2
Corn Belt	28.4	95.7	44.3
Delta	41.8	85.4	42.9
Lake	25.0	97.5	35.1
Mountain	27.3	93.4	39.3
Northeast	30.3	98.6	26.8
Northern Great Plains	30.0	97.9	41.0
Pacific	29.7	95.0	45.5
Southeast	36.1	88.7	27.9
Southern Great Plains	39.9	97.3	40.4
Total	32.3	95.4	39.1

^{1/} Operate all or part of their land as a farm or ranch.



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Appendix table 9--Percentage of farmland owners (50 acres or more) who did not complete high school.

Region	Individual and family owners		
	Operators	Nonoperators	
		Retired	Not-retired
		<u>Percent</u>	
Appalachian	48.1	65.4	40.1
Corn Belt	30.3	55.7	26.0
Delta	37.8	57.1	31.8
Lake	39.6	77.0	33.6
Mountain	25.1	68.2	16.0
Northeast	35.4	62.1	19.3
Northern Great Plains	34.4	58.9	22.9
Pacific	22.8	43.1	38.3
Southeast	45.6	61.0	38.1
Southern Great Plains	37.1	60.5	17.9
Total	34.5	61.2	27.6

1/ Operate all or part of their land as a farm or ranch.

Source: (10).

Appendix table 10--Percentage of farmland owners (50 or more acres) who earned less than \$10,000 in 1977. 1/

Region	Individual and family owners		
	Operators	Nonoperators	
		Retired	Not retired
		<u>Percent</u>	
Appalachian	40.1-46.0	77.1-89.7	39.7-45.7
Corn Belt	25.9-34.4	43.1-59.0	20.1-29.9
Delta	39.2-52.1	69.8-80.6	26.6-30.1
Lake	37.7-44.4	70.7-78.6	36.3-45.6
Mountain	40.7-46.4	66.2-73.2	20.3-27.9
Northeast	39.0-42.3	64.0-68.0	39.2-36.1
Northern Great Plains	51.1-57.5	42.6-66.4	29.9-35.4
Pacific	24.9-27.8	46.4-54.9	11.7-16.3
Southeast	29.3-34.8	62.3-70.5	40.7-46.1
Southern Great Plains	41.1-46.0	62.7-76.2	23.1-31.2
Total	36.5-55.0	59.9-71.9	30.5-38.3

1/ Combined farm and nonfarm income. Excludes owners with negative incomes in excess of -\$10,000, such owners were not considered a low-income group. A range of percent of owners with income of less than \$10,000 is given since the data were by ranges of income.

2/ Operate all or part of their land as a farm or ranch.

Source: (10).